

CLAIMS

What is claimed is:

1. An apparatus for providing access to authenticated electronic documents over a network comprising:
 - a server computer;
 - a user interface connected to said server via a first network interface for providing user access to said server;
 - a computer network containing said electronic documents connected to said server via a second network interface;
 - a database connected to said server via a third network interface, for storing data for authenticating said electronic documents;
 - wherein said first network interface, said second network interface and said third network interface are disjunct respective to each other such that said user, said computer network and said database are not in communication therebetween;
 - a verification server comprising first and second network interfaces for connecting said computer network and said database thereto;
 - wherein said first and second network interfaces are disjunct such that said database is not accessible to said computer network;
 - wherein said apparatus provides a user access to authenticated electronic documents from said computer network.
2. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said access is limited to selected documents.
3. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said access is selective based on the user.
4. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said computer network is a public network.

5. An apparatus as for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said computer network is a private network.

6. An apparatus as for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said computer network is the Internet.

7. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 further comprising a router connected to said user interface, said computer network, said server computer and said verification server for forwarding data packets from said computer network to said server computer and said verification server.

8. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 7 further comprising a high speed switch connected between said router and said server computer, said database and said verification server for providing data transmissions therebetween.

9. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 further comprising a router connected to said user interface and said server for transmitting data therebetween.

10. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said database contains for each said electronic document indexed information for identifying and authenticating said document and a status indicator for storing the status of the authenticity thereof.

11. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 10 wherein said verification server iteratively traverses said database and retrieves from said network the content of each said indexed electronic document, checks the authenticity thereof and updates said status indicator accordingly.

12. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said apparatus is scalable.

13. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said database is updatable.

14. An apparatus for providing access to authenticated electronic documents over a network as defined in claim 1 wherein said user is a computer.

15. A method for providing access to authenticated electronic documents over a network comprising the steps of:

- a) initializing a database by storing indexed information for identifying and authenticating each of said electronic documents therein;
- b) receiving a user request for an electronic document;
- c) searching and retrieving from said database said information for identifying and authenticating said requested document;
- d) accessing said network and retrieving the content of said requested document;
- e) calculating a checksum for the content of said retrieved document;
- f) comparing said checksum with said authenticating information for authenticating the content of said retrieved document;
- g) returning the content of said retrieved document to user if authenticated;
- h) returning a refusal to user if the content of said retrieved document not authenticated; and
- i) updating said authenticating information for said document in said database with the authenticity status thereof.

16. A method of providing access to authenticated electronic documents over a network as defined in claim 14 further comprising the steps of:
- a) iteratively traversing said database and retrieving said indexed information for identifying and authenticating each of said electronic documents;
 - b) retrieving from said network the content of said indexed electronic document;
 - c) calculating a checksum for the content of said retrieved document;
 - d) comparing said checksum with said authenticating information for authenticating the content of said retrieved document; and
 - e) updating said database with the authenticity status of said document.

17. A method of providing access to authenticated electronic documents over a network as defined in claim 15 wherein the step of calculating a checksum for the content of said retrieved document further comprising the steps of:
- a) retrieving indexed seed numbers for said document from said database;
 - b) traversing a forward pass of the data stream of the content of said retrieved document and calculating a first value for each position in said data stream using said seed numbers;
 - c) traversing a reverse pass of the data stream of the content of said retrieved document and calculating a second value for each position in said data stream using said seed numbers; and
 - d) summing said first value and said second value.

18. A method of providing access to authenticated electronic documents over a network as defined in claim 15 wherein the step of calculating a checksum for the content of said retrieved document further comprising the steps of:

- a) retrieving indexed seed numbers for said document from said database;
- b) initializing values for said checksum and a start counter to zero;
- c) initializing a length counter equal to the length of the content of said retrieved document; and
- d) traversing the content of said document character by character, adding to said checksum a first calculated value and a second calculated value for each character thereof wherein said start counter is incremented and said length counter is decremented for each said character traversed.

19. A method of providing access to authenticated electronic documents over a network as defined in claim 15 wherein said user request is received from a computer.